

FEB. 1999

**Refuge & Wildlife Perspective
on
Greater Snow Goose Population
and
Use of National Wildlife Refuges**

Overhead 1.

Significant snow goose numbers are found at a relatively small number of National Wildlife Refuges within the Atlantic Flyway. These refuges are located from southern New Jersey to North Carolina. The majority of NWRs do not view snow geese as a significant problem. However, at a few refuges, some habitat is altered or damage may occur to impoundment dikes.

Overhead 2.

Alteration of habitat at some refuges mostly occurs in the form of eat-outs within *Spartina* marshes. At E.B. Forsythe and Bombay Hook NWRs, snow goose eat-outs annually occurs on approx 600-1000 acres. These geese generally feed within the same areas each year. At Forsythe NWR much of the eat-outs occur within high marsh dominated by *Spartina patens* with very little regrowth occurring each year. At Bombay Hook NWR eat-outs occur in low marsh dominated by *Spartina alterniflora* which is subjected to daily tide fluctuations and revegetates each growing season. Refuge staff observe extensive use of these eat-outs by a variety of shorebird species and other waterfowl.

At Prime Hook NWR, snow geese do not feed extensively within saltmarsh habitat, however they primarily feed within freshwater impoundments. The geese extensively use young cattail and saltmarsh bulrush stands. This feeding action is viewed as very beneficial to the refuges shorebird and waterfowl management program. Snow geese set-back succession within these areas creating excellent shorebird habitat and seedbed conditions for subsequent moist soil vegetation response. At Back Bay and Mackay Island NWRs geese are often attracted to an area to feed by either discing or burning vegetation such as, black needle rush. Feeding activity on these stands helps to control this vegetation and set back succession to a more productive marsh community. Without this annual grubbing the impoundments would quickly become solid stands of robust perennial vegetation.

At other refuges farther south within the flyway, smaller numbers of snow geese are observed and their impact to habitat is generally minor.

When snow geese initially arrive at a refuge they use most often use it for both feeding and roosting. However, it appears that as refuge food resources are depleted they begin feeding on private agricultural lands and eventually only use the refuge for roosting and resting. Subsequently, the radius of feeding flights become longer and longer and the majority of geese relocate to a new roosting area in closer proximity to new food resources. In this manner, the geese are subjected to hunting pressure while using the refuge for roosting and feeding on private lands during the day, or they are using private lands to meet all of their daily needs and thus again

subjected to hunting pressure. The exception to this is E.B. Forsythe NWR where there are few nearby agricultural lands, and geese primarily feed within adjacent saltmarshes.

At some refuges, snow geese which are feeding on adjoining private agricultural lands may be transporting significant amounts of nutrients back to the refuge. Within some refuge impoundments this nutrient enrichment in the form of feces, may allow development of a large biomass of aquatic invertebrates which are used by shorebirds or waterfowl as a food resource. This nutrient loading however can cause eutrophication of the impoundment.

At E. B. Forsythe NWR, eat-outs within saltmarsh habitat adjacent to impoundment dikes is resulting in large open water areas at times of high tides. When strong winds occur wave damage is being experienced along the dike.

NWR actions to reduce snow goose habitat damage.

Of the 10 NWRs where large numbers of snow geese are found, migratory bird hunting presently occurs on (4 in R5, Bob N. could you give me figure for Region 4). A couple refuges (Forsythe and Bombay Hook) have increased season lengths, and/or areas open to hunting to increase the harvest. At Forsythe, areas where geese are causing extensive eat-outs which are resulting in wave erosion to impoundment dikes have also been opened to hunting. The refuge has also attempted hazing geese away from several areas with little success.

Potential actions to further reduce snow goose use at NWRs

Some refuges may be able to increase migratory bird hunting opportunities. However, with primary use of refuges as roosting areas, and most feeding occurring on off-refuge private lands, many of these geese are already subjected to hunting pressure (if local farmers would allow hunter access). While some hunting opportunity can be increased on refuges, we are also concerned about management for numerous other species and the impact of increased hunting and/or disturbance and hazing activities may have on these.

Several refuges conduct cropland management programs to provide additional food resources, primarily for Canada geese. Presently, at these refuges, most of this food resource is utilized by snow geese. At those refuges where little benefit is derived by waterfowl other than snow geese, these croplands may be converted to habitat for grassland birds. However, this would be an expensive undertaking, and if it were desired to convert these grasslands back to crops for future use by Canada geese, it may be difficult to locate cooperative farmers for the program.

It appears that the major limiting factor to increasing snow goose mortality is hunter access to private agricultural lands. What actions has the Flyway Council undertaken to engage the numerous farm organizations which farmers are members of, to solicit support to make these lands open to hunting? Numerous farmers receive extensive subsidies from Dept. Of Agriculture or other organizations. Possibly, these subsidies could be tied to having their lands open to snow goose hunting, within those geographic areas where large populations of snow geese are found.

Overhead 1.

Table 1. Estimated snow goose populations at National Wildlife Refuges within the Atlantic Flyway.

Refuge	Snow Goose Population Estimate
E.B. Forsythe NWR - NJ	100,000
Bombay Hook NWR - DE	200,000
Prime Hook NWR - DE	150,000
Blackwater NWR - MD	6,000
Chincoteague NWR - VA	35,000
Back Bay NWR - VA	10,000
Mackay Island NWR - NC	10,000
Pocosin Lakes NWR - NC	35,000
Mattamuskeet NWR - NC	10,000
Pea Island NWR - NC	3,000

Overhead 2

Benefits of Snow Goose Use on NWRs

- Alteration of habitat for the benefit of many shorebirds and other species of waterfowl
- Numerous refuge visitors greatly enjoy observing large flocks of snow geese
- Transport of nutrients into refuge impoundments which can increase invertebrate biomass as a food source for other species of wildlife
- ___ of 10 NWRs which have significant snow goose numbers, provide hunting opportunities for there harvest

Disadvantages of Snow Goose Use on NWRs

- NWRs are temporary focus areas used for roosting and movement of geese into surrounding agricultural lands where they depredate crops
- Large numbers of snow geese can cause habitat damage at some NWRs
- Transport of nutrients by snow geese into refuge impoundments can cause eutrophication of these wetlands
- Large numbers of snow geese usurp the majority of the food resource provided by NWR cropland management programs

Overhead 3.**Refuge Position on Snow Geese**

- Snow geese are not a major problem on National Wildlife Refuges within the Atlantic Flyway
- Snow geese using NWRs are presently subjected to hunting mortality
- A major limiting factor to hunting mortality is hunter access to private lands surrounding NWRs
- Refuge actions to discourage use by snow geese or to increase hunting opportunity must consider the impact on other wildlife species
- Snow goose feeding activity on some/most? NWRs is viewed as a positive habitat alteration for other species of wildlife
- Refuges which experience isolated problems as a result of snow goose activity, such as; dike erosion at E. B. Forsythe NWR, will deal with the problem on a case by case basis.
- At those NWRs where primary use of refuge croplands is by snow geese, the refuge will initiate actions to reduce the acreage of those croplands to force geese to increase feeding activity on off-refuge private lands. (This should generate some good discussion among us all!).

Author: Dave Heffernan at 4AT^RWRO

Date: 2/18/99 3:16 PM

Priority: Normal

CC: Frank Bowers, Jim Savery at 4AT^RWE, Mike Bryant at 4AT^RWE,
R4RW_NC.MTK (Donald Temple) at 4AT^RWE, Suzanne Baird at 4AT^RWE,
Bill Grabill at 4AT^ES

TO: Bob Noffsinger at 4AT^RWE

Subject: Re: Snow Geese and Refuges - Atlantic Flyway

Thanks for the info., Bob. I'm sure you will generate some comments.
And yes, this will probably be different than the mid-west strategy,
but they are very different issues! Good luck in your presentation.
Dave H.

FEB 19 1999

Reply Separator

Subject: Snow Geese and Refuges - Atlantic Flyway

Author: Bob Noffsinger at 4AT^RWE

Date: 2/18/99 2:45 PM

Refuge Manager	_____	File	_____
Arch Manager	_____	Discard	_____
Editor	_____	Post	_____
File	_____	Search	_____
Print	_____	Print	_____

Hello All,

I hope I did not leave anyone off the mailing list for this
issue, if I did please forward to whoever else you feel
should comment.

Attached is a wordperfect document (Snowgose.wpd) which
outlines information on snow goose use of NWRs along the
Atlantic Flyway. This information is to be presented to the
Flyway Council on Monday Feb 22. The presentation is only
to last 10 minutes or so, thus there are only 3 overheads.

Please review the attached document. The first portion is
essentially what I'll be saying, while at the end of the
document are 3 tables or bullets which will be used as
overheads.

This can be a potentially controversial topic. Especially
in light of what is occurring in the Mid-West with snow
goose mgmt. The attached viewpoints may not be consistent
with Refuge policies in mid-west. I would very much
appreciate your comments, corrections, viewpoints, etc, so
that we can have a single version of NWR perspective on snow
goose mgmt on NWRs within the flyway.

Thanks

Hal

Author: Bill Grabill at 4AT-ES

Date: 2/18/99 9:14 PM

Priority: Normal

TO: Bob Noffsinger at 4AT-RWE

CC: Frank Bowers at 4AT-RWRO, Mitch King at 4AT-ES, Cal Garnett at 4AT-ES, Jim Savery at 4AT-RWE, R4RW_NC.MTK (Donald Temple) at 4AT-RWE, Mike Bryant (Michael Bryant) at 4AT-RWE, Suzanne Baird at 4AT-RWE

Subject: Snow Geese and Refuges - Atlantic Flyway

Bob,

Sounds like a reasonable approach to me. Might want to think about involving RTNCF Outreach Team to assist with P.R. at some point.

Bill

Forward Header

Subject: Snow Geese and Refuges - Atlantic Flyway

Author: Bob Noffsinger at 4AT-RWE

Date: 2/18/99 2:45 PM

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Hal

FEB 10 1999

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